



ADAMS COUNTY  
WATER CONSERVANCY BOARD  
Application for Change/Transfer  
Record of Decision

RECEIVED  
For Ecology Use Only  
Received: MAY 31 2013  
DEPARTMENT OF ECOLOGY  
EASTERN REGIONAL OFFICE  
Reviewed by: \_\_\_\_\_  
Date Reviewed: \_\_\_\_\_

Applicant: Berend Friehe

Application Number: ADAM-12-01

This record of decision was made by a majority of the board at an open public meeting of the Adams County Water Conservancy Board held on 5/27/2013. The undersigned board commissioners certify that they each understand the board is responsible "to ensure that all relevant issues identified during its evaluation of the application, or which are raised by any commenting party during the board's evaluation process, are thoroughly evaluated and discussed in the board's deliberations. These discussions must be fully documented in the report of examination." [WAC 173-153-130(5)] The undersigned therefore, certifies that each commissioner, having reviewed the report of examination, knows and understands the content of the report.

☒ **Approval:** The Adams County Water Conservancy Board hereby **grants** conditional approval for the water right transfer described and conditioned within the report of examination on 5/27/2013 and submits this record of decision and report of examination to the Department of Ecology for final review.

☐ **Denial:** The (board name) Water Conservancy Board hereby **denies** conditional approval for the water right transfer as described within the report of examination on (date report of exam was signed) and submits this record of decision to the Department of Ecology for final review.

Signed:

Chris Lyle, Chair  
Adams County Water Conservancy Board

Date: 5/27/2013

Approve ☒  
Deny ☐  
Abstain ☐  
Recuse ☐  
Other ☐

Reid Phillips, Vice Chairman  
Adams County Water Conservancy Board

Date: 5/27/2013

Approve ☒  
Deny ☐  
Abstain ☐  
Recuse ☐  
Other ☐

Damon Roth, Treasurer  
Adams County Water Conservancy Board

Date: 5/27/2013

Approve ☒  
Deny ☐  
Abstain ☐  
Recuse ☐  
Other ☐

Mailed with all related documents to the Department of Ecology Spokane Regional Office and other interested parties on 5/29/2013.

If you have special accommodation needs or require this form in alternate format, please contact 360-407-6607 (Voice) or 711 (TTY) or 1-800-833-6388 (TTY).

Ecology is an equal opportunity employer





Adams County  
WATER CONSERVANCY BOARD  
Application for Change/Transfer  
OF A RIGHT TO THE BENEFICIAL USE OF THE PUBLIC WATERS OF  
THE STATE OF WASHINGTON

Report of Examination

**NOTE TO APPLICANT:** Pursuant to WAC 173-153-130(8), the applicant is not permitted to proceed to act on the proposal until Ecology makes a final decision affirming, in whole or in part, the board's recommendation. It is advised that the applicant not proceed until the appeal period of Ecology's decision is complete.

**NOTE TO AUTHOR:** Read the instructions for completing a water conservancy board report of examination. Use the F11 key to move through the form.

☐ Surface Water ☒ Ground Water

DATE APPLICATION RECEIVED March 26, 2012	WATER RIGHT DOCUMENT NUMBER (i.e., claim, permit, certificate, etc.) G3-00300 Superseding Certificate	WATER RIGHT PRIORITY DATE August 27, 1964	BOARD-ASSIGNED CHANGE APPLICATION NUMBER ADAM-12-01
---	---	--	--

NAME Berend Friehe, Friehe Farms	(CITY) Moses Lake	(STATE) WA	(ZIP CODE) 98837
ADDRESS (STREET) 2498 Rd S NE			

**Changes Proposed:** ☐ Change purpose ☐ Add purpose ☐ Add irrigated acres ☐ Change point of diversion/withdrawal  
☒ Add point of diversion/withdrawal ☐ Change place of use ☐ Other (Temporary, Trust, Interties, etc.)

**SEPA**  
The board has reviewed the provisions of the State Environmental Policy Act of 1971, Chapter 43.21C RCW and the SEPA rules, chapter 197-11 WAC and has determined the application is: ☒ Exempt ☐ Not exempt

BACKGROUND AND DECISION SUMMARY

Existing Right (Tentative Determination)

MAXIMUM CUB FT/ SECOND	MAXIMUM GAL/MINUTE 100 gpm	MAXIMUM ACRE-FT/YR 110 acre feet/year	TYPE OF USE, PERIOD OF USE 100 gallons per minute, 110 acre feet per year (2 acre feet per year, each year, for continuous domestic supply and stock water and 108 acre feet per year, each year, for the seasonal irrigation of 235 acres).				
SOURCE Well 1) 1203 feet West and 290 feet South from the N1/4 corner of Sec. 5, within Government Lot 3 (NE1/4NW1/4) of Sec. 5, T. 20 N., R. 31 E.W.M, Adams County. Well 2) 840 feet South and 1000 feet West from the NE corner of Sec. 19, within the NE1/4NE1/4 of Sec. 19, T. 21 N., R. 31 E.W.M., Lincoln County. Well 3) 480 feet South and 864 feet West from the NE corner of Sec. 19, within the NE1/4NE1/4 of Sec. 19, T. 21 N., R. 31 E.W.M., Lincoln County.			TRIBUTARY OF (IF SURFACE WATER)				
AT A POINT LOCATED: PARCEL NO. 2131019700024	¼ NE	¼ NE	SECTION 19	TOWNSHIP N. 21	RANGE 31	WRIA 41	COUNTY Lincoln
2131050200002	NE	NW	05	20	31	41	Adams
LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS USED The NE1/4 of Sec. 19, and the E1/2SE1/4 of Sec. 18, ALL IN T. 21 N., R. 31 E.W.M., Lincoln County, Less Roads.							
PARCEL NO.	¼	¼	SECTION 18 & 19	TOWNSHIP N. 20	RANGE 31		



## Proposed Use

MAXIMUM CUB FT/ SECOND	MAXIMUM GAL/MINUTE 100	MAXIMUM ACRE-FT/YR 110	TYPE OF USE, PERIOD OF USE 100 gallons per minute, 110 acre feet per year (2 acre feet per year, each year, for continuous domestic supply and stockwater and 108 acre feet per year, each year, for the seasonal irrigation of 235 acres).				
SOURCE Applicant proposes to add seven point of withdrawals to existing three points of withdrawal			TRIBUTARY OF (IF SURFACE WATER)				
AT A POINT LOCATED: PARCEL NO. 2031170410001 (Proposed Well)	¼ NE	¼ SE	SECTION 17	TOWNSHIP N. 20	RANGE 31	WRIA 41	COUNTY. Adams
2031160100001 (Proposed Well)	SE	NE	16	20	31	41	Adams
2131031600010 (Proposed Well)	E1/2	SW	31	21	31	41	Lincoln
181487000 (2 proposed wells)		W1/2	36	21	30	41	Grant
181461000 (2 proposed wells)		E1/2	25	21	30	41	Grant
2131019700024 (2 existing wells on certificate)	NE	NE	19	21	31	41	Lincoln
2031050200002 (1 existing well on certificate)	N1/2	NW	05	20	31	41	Adams
LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED							
The NE1/4 of Sec. 19, and the E1/2SE1/4 of Sec. 18, ALL IN T. 21 N., R. 31 E.W.M., Lincoln County, Less Roads.							
PARCEL NO.	¼	¼	SECTION 18 & 19	TOWNSHIP N. 21	RANGE, 31		

## Board's Decision on the Application

MAXIMUM CUB FT/ SECOND	MAXIMUM GAL/MINUTE 100	MAXIMUM ACRE-FT/YR 110	TYPE OF USE, PERIOD OF USE 100 gallons per minute, 110 acre feet per year (2 acre feet per year, each year, for continuous domestic supply and stock water and 108 acre feet per year, each year, for the seasonal irrigation of 235 acres).				
SOURCE Add four point of withdrawals to existing three points of withdrawal			TRIBUTARY OF (IF SURFACE WATER)				
AT A POINT LOCATED: PARCEL NO. 203117041001 (proposed Well)	¼ NE	¼ SE	SECTION 17	TOWNSHIP N. 20	RANGE 31 E	WRIA 41	COUNTY. Adams
2031160100001 (Proposed Well)	SE	NE	16	20	31	41	Adams
2131031600010 (Proposed Well)	E1/2	SW	31	21	31	41	Lincoln
181487000 (1 proposed well)		W1/2	36	21	30	41	Grant
2131019700024 (2 existing wells on certificate)	NE	NE	19	21	31	41	Lincoln
2031050200002 (1 existing well on certificate)	N1/2	NW	05	20	31	41	Adams
LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED AS APPROVED BY THE BOARD							
The NE1/4 of Sec. 19, and the E1/2SE1/4 of Sec. 18, ALL IN T. 21 N., R. 31 E.W.M., Lincoln County, Less Roads.							
PARCEL NO.	¼	¼	SECTION 18 & 19	TOWNSHIP N. 21	RANGE, 31		



DESCRIPTION OF PROPOSED WORKS

The applicant seeks to add points of withdrawal to the said water rights, effectively allowing for greater flexibility and reliability in water use for this water right. Wells would connect to existing infrastructure in place from seasonal changes completed on water rights. Conveyance piping currently runs from Sec 14 T20N, R31EWM in the south to Sec 31 T21N, R31EWM. Seasonal changes will be completed for flexibility in potato crop rotation on leased lands. The change in place of use will not increase the acreage irrigated in this certificate.

New works required under this application will include the installation of groundwater wells, associated pumps and piping, and conveyance pipes to the existing infrastructure.

DEVELOPMENT SCHEDULE

BEGIN PROJECT BY THIS DATE: December 31 2014	COMPLETE PROJECT BY THIS DATE: December 31 2018	COMPLETE CHANGE AND PUT WATER TO FULL USE BY THIS DATE: December 31 2020
---	--	---

REPORT

NOTE TO AUTHOR: This form reflects the minimum regulatory requirements as required in WAC 173-153-130(6). In accordance with WAC 173-153-130(5), "It is the responsibility of the water conservancy board to ensure that all relevant issues identified during its evaluation of the application, or which are raised by any commenting party during the board's evaluation process, are thoroughly evaluated and discussed in the board's deliberations. These discussions must be fully documented in the report of examination." Completion solely of the minimum regulatory requirements may not constitute a fully documented decision.

BACKGROUND [See WAC 173-153-130(6)(a)]

On March 26, 2012, Troy Kissler of Odessa, WA filed an application for change/transfer to add points of withdrawal under Superseding Certificate G3-00300. The application was accepted at an open public meeting on March 26, 2012, and the board assigned application number ADAM-12-01. This application was later assigned to Mr. Berend Friehe on August 23<sup>rd</sup>, 2012.

Attributes of the water right as currently documented

Name on certificate, claim, permit: Lamar Kissler (purchased by Berend Friehe June 2012)

Water right document number: G3-00300

As modified by certificate of change number: Superseding Certificate issued 6/10/2008)

Priority date, first use: August 27, 1964

Water quantities: Qi: 100 gallons/minute                      Qa: 110 acre ft./ year

Source: Well 1) 1203 feet West and 290 feet South from the N1/4 corner of Sec. 5, within Government Lot 3 (NE1/4NW1/4) of Sec. 5, T. 20 N., R. 31 E.W.M, Adams County.

Well 2) 840 feet South and 1000 feet West from the NE corner of Sec. 19, within the NE1/4NE1/4 of Sec. 19, T. 21 N., R. 31 E.W.M., Lincoln County.

Well 3) 480 feet South and 864 feet West from the NE corner of Sec. 19, within the NE1/4NE1/4 of Sec. 19, T. 21 N., R. 31 E.W.M., Lincoln County.

Proposed point of diversion/withdrawal: See above. Applicant is proposing to add seven new points of withdrawals at various locations in Adams, Grant and Lincoln Counties to the existing three point of withdrawals.

Purpose of use: 100 gallons per minute, 110 acre feet per year (2 acre feet per year, each year, for continuous domestic supply and stockwater and 108 acre feet per year, each year, for the seasonal irrigation of 235 acres).

Period of use: Irrigation season

Place of use: The NE1/4 of Sec. 19, and the E1/2SE1/4 of Sec. 18, ALL IN T. 21 N., R. 31 E.W.M., Lincoln County, Less Roads.

Existing provisions:

"Ground Water Certificate G3-23008C is supplemental to Ground Water Certificate G3-00300C. Therefore, the quantity of G3-23008C will issue less any amount withdrawn under G3-00300C. The total of these two certificates shall not exceed 850 gallons per minute, 803 acre feet per year, for irrigation of 690 acres. The supplemental portion is factored into above quantities."

"A superseding certificate of water right will not be issued until a final examination is made."

"Water allocated for irrigation purposes in this permit may be withdrawn until such time as water from the Project facilities becomes available to the permittee or his successor in the interest for all or a portion of the lands described herein as the place of use. At that time, volumetric withdrawal shall be proportionately reduced to correspond to the acreage, if any, for which project water is not available."

"An approved measuring device shall be installed and maintained for each of the sources identified herein in accordance with the rule "Requirements for Measuring and Reporting Water Use", Chapter 173-173 WAC. Water use data shall be recorded weekly and maintained by the property owner for a minimum of five years, and shall be promptly submitted to Ecology upon request."

"The above describes the requirements for data accuracy, device installation and operation, and information reporting. It also



allows a water user to petition Ecology for modifications to some of the requirements. Installation, operation and maintenance requirements are enclosed as a document entitled "Water Measurement Devices Installation and Operation Requirements."

"Department of Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times, to the records of water use that are kept to meet the above conditions, and to inspect at reasonable times any measuring device used to meet the above conditions."

"The meter at Well C was not functioning properly, thus it will need to be inspected and repaired by a qualified person."

"The water quantities and uses recommended and/or the number of acres to be irrigated may be reduced at the time of issuance of a final water right commensurate with the capacity of the installed system and the uses and/or the number of acres actually irrigated."

"Any future pump test data for the new well shall be submitted as it is obtained to the Department of Ecology."

"The amount of water granted is a maximum limit that shall not be exceeded and the water user shall be entitled only to that amount of water within the specified limit that is beneficially used and required for the actual crop grown on the number of acres and the place of use specified."

"This authorization to make use of public waters of the State is subject to existing rights, including any existing rights held by the United States for the benefit of Indians under treaty or otherwise."

"All water wells constructed within the State shall meet the minimum standards for construction and maintenance as provided under RCW 18.104 (Washington Water Well Construction Act of 1971) and Chapter 173-160 WAC (Minimum Standards for Construction and Maintenance of Water Wells)."

"Use of water under this authorization shall be contingent upon the water right holder's utilization of up to date water conservation practices and maintenance of efficient water delivery systems consistent with established regulation requirements and facility capabilities."

"WAC 173-130A-170 Casing and Sealing. In order to protect existing shallow domestic and stock water wells, and springs, casing and sealing requirements will be determined on a case-by-case basis and included as a provision on all new permits issued. New permits will also be conditioned to prohibit cascading water in wells in accordance with Chapter 173-160 WAC (Minimum Standards for Construction and Maintenance of Water Wells). Sealing of required casing shall consist of filling the annular space between casing and well bore with cement grout placed by pumping from the bottom of the casing to land surface. Alternative methods to provide the same protection afforded by casing and sealing may be submitted to the department for review and shall only be used if approved in writing by the department prior to well completion."

"WAC 173-130A-180 Reworking wells. Any well which is reworked shall be constructed to comply with the casing and sealing provisions of WAC 173-130A-170. Reworking shall include, but not be limited to, reaming to enlarge well diameter or deepening."

"WAC 173-130A-140 Airlines. An airline and pressure gauge shall be installed and maintained in operating condition on all new or reworked wells and equipped with a standard tire valve, placed in an accessible location. The airline shall extend from land surface to the top of the pump bowls. The total length of the airline and any changes in length shall be reported to the department."

PROPOSED CHANGE: The application proposes to add seven potential points of withdrawal as outlined in Table 1. No other changes to water right attributes are proposed. Changes in place of use will be continued under the Seasonal Change application process.

TABLE 1: SUMMARY OF EXISTING AND PROPOSED POINT OF WITHDRAWALS

**Existing Approved POW's**

SOURCE	NO.	¼	¼	SEC.	TWP.	RGE.	PARCEL #
Groundwater (Wanapum)-Lincoln County	2	NE	NE	19	21	31	2131019700024
Groundwater (Wanapum)- Lincoln County	3	NE	NE	19	21	21	2131019700024
Groundwater (Grande Ronde)- Adams County	1	N1/2	NW	05	20	31	2031050200002

**Proposed POW's**

SOURCE	NO.	¼	¼	SEC.	TWP.	RGE.	PARCEL #
Proposed Groundwater – Adams County	E	SE	NE	16	20	31	2031160100001
Proposed Groundwater – Adams County	F	NE	SE	17	20	31	2031170410001
Proposed Groundwater – Lincoln County	G	E ½	SW	31	21	31	2131031600010
Proposed Groundwater – Grant County	H		W ½	36	21	30	181487000
Proposed Groundwater – Grant County	I		W ½	36	21	30	181487000
Proposed Groundwater – Grant County	J		E ½	25	21	30	181461000
Proposed Groundwater – Grant County	K		E ½	25	21	30	181461000

In addition to this application for change filed under Groundwater Certificate G3-00300C, Troy Kissler filed applications for change/transfer of Groundwater Certificates G3-23008C and No. 7079A. Applications for G3-00300C and 23008C were assigned to Mr. Berend Friehe in August 2012 after Mr. Berend Friehe purchased the interest in the water rights in 2012.



Application G3-07079A is still being processed under Mr. Troy Kissler.

*Tentative determination of the water right*

The board has tentatively determined that a water right exists based on the information provided on the front page of this report.

*History of water use*

Jake Kissler filed the original application No. 7309 for G3-00300C. The ground water application requested a permit for a well to withdraw 150 gpm, 960 acre feet/year for the irrigation of 240 acres. The ROE in November 1964 approved a maximum of 150 gallons per minute, 162 acre feet/year for the irrigation of 240 acres. Ground Water Certificate G3-00300C was certified on January 24, 1973 for 100 gpm, 110 AF for irrigation of 235 acres. A superseding certificate issued on June 10<sup>th</sup>, 2008 approved the same amount as the original certificate and add points of withdrawal. The land is owned by Lamar Kissler, but the water right is now owned by Berend Friehe and the place of use described on the certificate is leased by Troy Kissler.

*Previous changes*

A change to the original water right certificate was submitted in March 2003 to add three points of withdrawals. This resulted in an ROE being prepared by Mr. Dan Tolleson of Ecology on June 16, 2003. After issuance of the ROE, litigation occurred for the approved use of a well located in the SW1/4NW1/4 Section 15, T20N, R31EWM., which was currently being used by Julie Buckland for water right G3-01153C. A decision in Superior Court No. 07976-9, issued on October 30<sup>th</sup>, 2007, resulted in the applicant not having the authority or ownership of this well, which was subsequently removed from the application. The subsequent superseding certificate which was issued on June 10<sup>th</sup>, 2008 approved an additional two points of withdrawal to the original certificate for a total of three POW (see Table 1).

A second change application was submitted to and accepted by the Adams County Water Conservancy Board on September 27<sup>th</sup>, 2010. This application requested the addition of one additional point of withdrawal to the three approved under the superseding certificate. This application was eventually withdrawn from the Adams County WCB and Ecology's files as documented Ecology's April 3, 2012 letter.

Seasonal changes were completed and approved by Ecology for the certificate in each year from 2003 through 2012 for the place of use for irrigation of 235 acres, 100 gpm, 108AF for irrigation. The 2 AF for domestic remained with the original place of use for each of these changes.

*SEPA*

This application is exempt from the provisions of the State Environmental Policy Act (SEPA) of 1971, Chapter 43.21C RCW.

*Other*

In addition to this application for change filed under Ground Water Certificate G3-00300C, Troy Kissler is also applying for the change/transfer of Ground Water Certificate G3-23008C (refer to Table 3). Each application will have decisions based on its own respective findings.

**The information or conclusions in this section were authored and/or developed by Adams County Water Conservancy Board.**

**COMMENT AND PROTESTS** [See WAC 173-153-130(6)(b)]

Public notice of the application was given in the Odessa Record and Ritzville Adams County Journal on October 25<sup>th</sup> and November 1<sup>st</sup>, 2012 (2 consecutive weeks). Protest period ended on December 1<sup>st</sup>, 2012. Notice of public hearing meeting on February 25<sup>th</sup>, 2013 was also advertised in the Ritzville Adams County Journal and Odessa Record on February 21<sup>st</sup>, 2013.

No protests were received during the 30 day protest period. Three oral and written comments were received at an open public meeting of the board or other means as designated by the board. During the public hearing held on February 25<sup>th</sup>, 2013, no formal oral and /or written comment was received.

Date: December 17, 2012

This was recognized by the board as a ☐ Protest ☒ Comment

Name/address of protestor/commenter: Jon & Sharon Fink, 2308 Moody Rd N, Odessa, WA 99159-9760

Issue: Protestor is in close proximity to the proposed point of withdrawal and felt it could adversely affect their domestic water supply. Mr. Fink voiced concerns under all three proposed applications associated with this evaluation.

Board's analysis: Jon & Sharon Fink submitted a letter protesting the application. In addition, Mr. Jon Fink attended the Board's December 17<sup>th</sup>, 2013 open public meeting and voiced concerns. The protestor cited that their well is in close proximity from the proposed points of withdrawal and feel this could adversely affect their domestic well and their certificate G3-27952C. The protestor's domestic well is drawing water from the Wanapum aquifer in the SE-SE Section 4, T20N, R31EWM. This well is generally down and cross-gradient of the original points of withdrawal. The new proposed points of withdrawal will be further away cross-gradient of the Fink well, or now down-gradient from the well. In addition, the new proposed points of withdrawal will be casing and sealing through the Wanapum aquifer and withdrawing water from the Grande Ronde. This should alleviate protestant's concerns.



*Other*

The new proposed wells will be cased and withdrawing water from deeper Grand Ronde basalt interflows which are not hydraulically connected to the wells Jon & Sharon Fink are using. The Finks well are also located approximately 1-1/2 miles from the nearest proposed point of withdrawals. It appears the addition of the new wells, and the "spreading out" of the groundwater withdrawals, would be a benefit to the Fink well. In addition, no increase in the instantaneous and/or annual quantities will occur with this application.

Date: December 6, 2012

This was recognized by the board as a ☐ Protest ☒ Comment

Name/address of protestor/commenter: Danny Richardson

Issue: Protestor felt transfer could affect their domestic and irrigation water supply. Mr. Richardson voiced concerns under all three proposed applications associated with this evaluation.

Board's analysis: Danny Richardson submitted a letter protesting the application. The protestor cited that his well located in Section 15, T20N, R31EWM is in close proximity from the proposed points of withdrawal located in Section 16 and 17, T20N, R31EWM and feel this could adversely affect their domestic well supply and their irrigation certificate G3-01153(A). The protestor's well is completed to a depth of 608 feet below grade and is inferred to be down-gradient of the original point of withdrawal. In addition, it appears the well is primarily drawing water from the Wanapum aquifer in the NW-NW Section 15, T20N, R31EWM. This well is generally cross-gradient from the proposed points of withdrawal, and is approximately 1/2-mile from the proposed point of withdrawal in Section 16. Mr. Richardson and the proposed points of withdrawal are approximately the same topographic elevation in the Moody Gulch drainage. The proposed well in Section 16 is estimated to be completed to a depth of approximately 800 feet, 200 feet deeper than Mr. Richardson's well, to intercept the same water bearing unit as that at the Kissler Home place. Therefore, the new point of withdrawal will be from a lower interval than Mr. Richardson's and the new well will be cased and sealed through the Wanapum which Mr. Richardson is withdrawing from. The other new proposed points of withdrawal will be further away cross-gradient of the Richardson well. In addition, the new proposed points of withdrawal will be casing and sealing through the Wanapum aquifer and withdrawing water from the Grande Ronde. This should alleviate protestant's concerns.

*Other*

The new proposed wells will be cased and withdrawing water from deeper Grand Ronde basalt interflows which are not hydraulically connected to the well Mr. Richardson is using. In addition, no increase in the instantaneous and/or annual quantities will occur with this application.

Date: November 29, 2012

This was recognized by the board as a ☐ Protest ☒ Comment

Name/address of protestor/commenter: Neil Fink, 3790 Fink Rd East, Odessa, WA 99159

Issue: Protestor requested Board to consider the proximity of the proposed wells to the protestor's wells located in Sections 23 and 27, T21N, R31EWM and Section 7 T20N, R31EWM, relative to impairment.

Board's analysis: Neil Fink submitted a letter protesting the application. The protestor cited that his well are located in Sections 23 and 27, T21N, R31EWM and Section 7 T20N, R31EWM and was concerned about potential impairment to these wells. Relative to the wells in Sections 23 and 27, T21N, R31EWM, these wells are located approximately 2-1/2 miles cross-and upgradient of the existing wells. All proposed wells are located further cross-gradient and down-gradient of the existing approved points of withdrawals. No impairment, due to no expansion of the right should occur. Relative to Mr. Fink's well in Section 7, they are located approximately 1-mile from the existing point of withdrawal in Section 5. The well logs for Mr. Fink's wells were reviewed (Township on well logs are mislabeled as T10N in Ecology well log database). Mr. Fink's well is completed to a depth of 2,410 feet below grade and is cased to 840 feet. It appears he is withdrawing groundwater from lower basalt intervals than the Kissler Home well. The Kissler well is also located upgradient of the Fink well. Proposed wells north of Mr. Fink's property will still be upgradient. Due to no increase in the annual volume withdrawn by the Kissler well, no impairment should occur. In addition, the transfer of this water right to the proposed wells in Section 16 and 17, T20N, R31EWM to the Moody Gulch area, would move the withdrawal of groundwater from upgradient of Mr. Fink's well, to down-gradient; thus resulting in a benefit to Mr. Fink's well. In addition, no increase in the instantaneous and/or annual quantities will occur with this application.

**The information or conclusions in this section were authored and/or developed by Adams County Water Conservancy Board.**

**INVESTIGATION** [See WAC 173-153-130(6)(c)]

The following information was obtained from a site inspection conducted by Dennis Swinger on February 5<sup>th</sup>, 2013, technical reports, research of department records, and conversations with the applicant and/or other interested parties.

*Proposed project plans and specifications*



On February 5<sup>th</sup>, 2013 Dennis Swinger (Chairman of the Adams County Water Conservancy Board), Gene St.Godard (contractor for Berend Friehe) and Troy Kissler (property owner) conducted a site inspection of the existing points of withdrawal. The site is located within the Odessa subarea. The Odessa subarea was established in 1973 and is managed under Chapter 173-128A and Chapter 172-130A WAC.

The existing water right is authorized for three points of withdrawal. At the Kissler Home site in Section 5, there is an additional well that is used for domestic purposes. Table 2 summarizes the existing wells at the site used for G3-00300 and G3-23008.

Table 2  
Existing Well Specifications

Well	Latitude	Longitude	Status	Size (in)	Depth (feet)	Casing	Pump Type	Pump HP	Unique Id Tag #
1	N47.26088	W118.95370	Online	13	777	30	Turbine	400	AAN-853
Kissler Domestic	N47.26095	W118.95339	Online				Submersible		
2	N47.30361	W118.96159	Online	10	440	32	Turbine	100	
3			Online	6	*126	---	Submersible	50	

\*Kissler domestic well is used under certificate No. 7079-A.

The site consists of three irrigation points of withdrawals, of which the one at the Kissler Farm house is the primary withdrawal point. Historically, the water right has used other points of withdrawal under seasonal change authorizations. Well 1 (AAN-853) is at the Kissler Farm house ( NE1/4NW1/4, Sec. 5 within T. 20 N., R. 31 E.W.M., Adams County, WA ). In addition, there is a second well used for domestic purposes at this location under certificate No. G3-07079A which provides water to the two homes on the Kissler property. The primary irrigation well (AAN-853): the facilities include a 400hp deep well turbine pump with control panel and a 40hp booster pump with control panel. The other two wells (#2 & #3) are located at the original place of use of the certificate in Section 19. The domestic portion of G3-00300 is being used from Well #3. The wells are located in the farmyard, NE1/4NE1/4 Sec. 19 within T. 21 N., R. 31 E.W.M., Lincoln County, WA . The facilities include a 100hp deep well turbine pump with control panel and a 50hp booster pump with control panel. Mr. Kissler has the necessary buried main lines to deliver water from the wells to the permitted places of use. Buried piping can deliver water from the northern most withdrawal points in Section 19, T21N, R31EWM to the southernmost proposed wells in Section 16 & 17, T20N, R31EWM. This conveyance system allows delivery of water to the various leased fields over this eight mile area.

Proposed plans for the project completion would be to complete a minimum of one well into the Grande Ronde basalt aquifers. Pumps and conveyance piping will be constructed from the newly completed wells to the existing conveyance system.

The proposed use of water will be the same as currently listed on the existing superseding certificate. The water right will allow for a withdrawal of 100 gpm, 110 AF (108 AF for irrigation, 2 AF for domestic and stockwatering), to irrigate 235 acres. No increase or expansion of the water right will occur under this transfer.

Other water rights appurtenant to the property (if applicable)

Currently the water right owner uses three water rights to irrigate lands within the withdrawal and conveyance system. Table 3 summarizes the three water rights. Under this application, water rights G3-00300 and G3-23008 are for a total of 850 gpm, 803 AF/year, to irrigate 690 acres. The WIG lists a water duty of 29.46 inches (2.455 ft) per acre of land. The water duty under certificate G3-00300 and G3-23008 is 1.164 ft/acre. Seasonal changes approved by Ecology have been completed for these certificates each year from 2003 through 2012, at which time Ecology has confirmed that the full water duty has been placed on 690 acres, in which a production of potatoes was harvested. Therefore, in the opinion of the Board, the water rights have been fully perfected each year.

Table 3: Summary of Kissler/Friehe Water Rights for Irrigation					
Water Right #	Priority Date	Qi (gpm)	Qa (AF/yr)	Acres	Season of Use
G3-07079A	5/9/1967	800	710	355	3/1 – 11/1
G3-00300	8/27/1964	100	108	235	seasonal
G3-23008*	5/9/1974	850	803	690	4/1 – 10/31

Note: G3-07079A has an additional 4 AF/yr for domestic and stockwatering and G3-00300 has an additional 2 AF/yr for domestic and stockwatering.

\*G3-23008 is supplemental-100 gpm, 108 AF/yr, for the irrigation of 235 acres is supplemental to G3-00300.

Irrigation uses of the water right will consist of irrigation for potatoes and winter wheat. Since the superseding certificate was issued in 2008, Berend Friehe has been utilizing the water right on 235 acres on various leased lands, conducted annually through seasonal changes approved by Ecology. Aerial photographs found at the FSA, Google earth, and Bing maps show the lands irrigated by circles in Section 8 and 9, T20N, R31EWM.

Investigation



In considering the proposed change/transfer, the investigation included, but was not limited to research and review of (1) appropriate rules and statutes; (2) Ground Water Certificate G3-23008C, Ground Water Certificate G3-07079A , Ground Water Certificate G3-00300C and other water rights/claims/applications in the vicinity; (3) water well reports for the applicant’s wells and other wells in the vicinity; (4) USGS topographic maps; (5) hydrogeologic information available through the GWMA and the applicants contractor WNR Group, Inc., and (6) discussions with Department of Ecology regional program staff.

Ground Water Certificate G3-00300C’s original place of use, described in Sections 18 & 19 appears to have been historically irrigated. The place of use describes roughly 240 acres, but the water right only authorized a maximum of 235 acres of irrigation. The area around the three houses appears to be the only part of the place of use that has not been cultivated. It appears that historically 235 acres were irrigated under this certificate. The place of use of G3-23008C partially overlaps supplemental to G3-00300C.

Each year since the issuance of the superseding certificate, Berend Friehe filed seasonal changes to change the place of use of G3-23008C and G3-00300C to land that is within the area served by Wells 1 & 2 (see below). Portions of the original place of use are currently in the CRP program and will not be irrigated or moved until the CRP contract expires.

Well 1 is capable of water delivery to the following: Sections 5, 8, 9 & 15 within T. 20 N., R. 31 E.W.M., Adams County and Section 31 within T. 21 N., R. 31 E.W.M., Lincoln County. Well 2 is capable of water delivery to the following: Sections 13 & 24 within T. 21 N., R. 30 E.W.M., Grant County and Sections 18 & 19 within T. 21 N., R. 31 E.W.M., Lincoln County.

- \* Well 1: This well is online and is used as a primary source of withdrawal for this system. The meter appears to be operational and properly installed. There is a booster pump at the site, but it has no visible horse power rating.
- \* Well 2: This well is online and is used as a primary source of withdrawal for this system. The meter doesn’t appear to be operating properly. There is a 50 horse power boost pump at this site. This is the original well for this certificate. This well system was originally designed to serve the entire place of use of GWC G3-23008C.
- \* Well 3: This was the original well for GWC G3-00300C. This well will no longer be used for irrigation, but it will still be used for domestic supply and stock watering. A meter will need to be installed on Well 3, to comply with Chapter 173-173 WAC.

Table 4  
Well Locations

Well	1/41/4 Location	Section	Township	Range	County
1	Gov. Lot 3 NE1/4 NW1/4	5	20 N	31 E	Adams
2	NE1/4NE1/4	19	20 N	31 E	Lincoln
3	NE1/4NE1/4	19	20 N	31 E	Lincoln

This water right has been granted many seasonal changes over the years, they are as follows since the issuance of the superseding certificate in 2008:

- 2008 and 2012 Season changes: 130 acres were moved to a pivot in the SW1/4 of Sec.9, T. 20 N., R 31 E.W.M.; and 95 acres to the NE1/4 Sec. 9, T20N, R31EWM.
- 2009 Season changes: 130 acres were moved to a pivot in the NW1/4 of Sec.9, T. 20 N., R 31 E.W.M.; and 95 acres to the NE1/4 Sec. 9, T20N, R31EWM.
- 2010 and 2011 Seasonal change: 130 acres were moved to a pivot in the SW1/4 of Sec.9, T. 20 N., R 31 E.W.M.; and 95 acres to the SE1/4 Sec. 8, T20N, R31EWM..

These change files show that much of the water right has been historically and beneficially exercised. A seasonal change does not determine the extent of a water right. The Board reviewed aerial photographs, specifically those dated September 10<sup>th</sup>, 2009, and August 7<sup>th</sup>, 2011, which revealed the areas noted above were being irrigated.

*Public Interest (groundwater only)*

The proposed transfer is subject to RCW 90.44.100 and therefore, cannot be detrimental to the public interest, including impacts on any watershed planning activities. The Washington State Supreme Court, in Okanogan Wilderness v. Town of Twisp and Department of Ecology, 133 Wn.2d 769, 947 P.2d 732 (1997), found that applications for change may be granted only to the extent the water has been historically put to beneficial use, as beneficial use determines the measure of a water right. They also found that the existence and quantification of a water right must be determined, including whether or not the water right has been lost for non-use before the Department can approve a change or transfer of the water right.

According to the FSA, 217 acres within the E3/4S1/2S1/2NE1/4 and SE1/4SW1/4 and SW1/4SE1/4 and E1/2SE1/4 of Sec. 18; N1/2NE1/4 of Sec. 19, ALL within T. 21 N., R. 31 E.W.M., Lincoln County, are now in CRP. Roughly 92 acres of CRP are within the original place of use of GWC G3-00300C and of that 80 acres will remain in CRP. This 80 acre plot of land is located within the E1/2SE1/4 of Sec. 18, T. 21 N., R. 31 E.W.M. The land is now cleared of sage brush and is in native grasses. The evidence of previous cultivation helps support the historical and beneficial use of this water right. Although the CRP land is within two counties, it is all administered out of the Lincoln County FSA office.



It appears that historically this water right was used to supplement dry land wheat crops. The maximum water duty of Ground Water Certificate G3-00300C is 0.46 acre feet, per year, per acre. GWC G3-23008C was granted to help supplement this right, so more water could be applied to wheat or higher water duty crops could be grown. With the combination of these two rights, higher water duty crops have been grown as intended. It appears that this right has been historically and beneficially used to its full extent.

Ground Water Certificate G3-23008C is supplemental to Ground Water Certificate G3-00300C. Therefore, the quantity of G3-23008C will issue less any amount withdrawn under G3-00300C. The total of these two certificates shall not exceed 850 gallons per minute, 803 acre feet per year, for the irrigation of 690 acres.

Table 5  
Water Rights Specifications for Irrigation

Water Right	Qi Primary	Qa Primary	Qi Supplemental	Qa Supplemental	Acres Primary	Acres Supplemental
G3-00300C	100	108**			235	
G3-23008C*	750	695	100	110	455	235
Irrigation Total:	850	803			690	

\*\* 2 acre feet/year for stock water and domestic supply for a total of 110 acre feet per year  
\*Supplemental to G3-00300C

Tentative Determination

In order to make a water right change decision, the Board must make a tentative determination on the validity and extent of the right. The Board has made the tentative determination as displayed upon the first page of this report. There are several circumstances that can cause the board’s tentative determination to differ from the stated extent of the water right within water right documentation. Water right documents attempt to define a maximum limitation to a water right, rather than the actual extent to which a water right has been developed and maintained through historic beneficial use. Additionally, except for a sufficient cause pursuant to RCW 90.14.140, water rights, in whole or in part, not put to a beneficial use for five consecutive years since 1967 may be subject to relinquishment under Chapter 90.14.130 through 90.14.180 RCW. Water rights may additionally be lost through abandonment. The Board’s tentative determination was based upon the following findings: <Describe any information indicating that an existing water right or portion of a water right has been relinquished or abandoned due to nonuse and the basis for the determination>

Geologic, Hydrogeologic, or other scientific investigations (if applicable)

Application for change of water right permits and certificates are governed by RCW 90.44.100, which states in part that: the holder of a valid right to withdraw public ground waters may, without losing his priority of right, construct wells at a new location in substitution for, or in addition to, those at the original location, or he may change the manner or the place of use of water. Such amendment shall be issued by the Department only on the conditions that: 1) the additional or substitute well or wells shall tap the same body of public ground water as the original well or wells; 2) use of the original well or wells shall be discontinued upon construction of the substitute well or wells; 3) the construction of an additional well or wells shall not enlarge the right conveyed by the original permit or certificate; and 4) other existing rights shall not be impaired. The Department may specify an approved manner of construction and shall require a showing of compliance with the terms of the amendment.

The proposed project lies within the boundaries of the Odessa Sub-area as defined in Chapter 173-128A WAC. The Odessa Sub-area encompasses approximately 2000 square miles. The relatively flat-lying land surface slopes in a southwesterly direction and is locally dissected by coulees.

Basalt aquifers of the Odessa Sub-area are part of a large ground water reservoir occurring in a thick series of basalt flows known as the Columbia River Basalt Group. The thickness of these basalts varies from a few hundred feet at the Spokane River to over 10,000 feet in the Pasco Basin. The original points of withdrawal for these change applications are completed within the Wanapum and the Grande Ronde formation of the Columbia River Basalt Group.

The applicant retained a contractor to conduct a hydrogeologic analysis for the area. This information is presented in the Water & Natural Resource Group, Inc. (WNR Group) December 20<sup>th</sup>, 2012 report. The following is a summary from this report:

*“Review of data suggests that the hydrogeologic conditions at the existing and proposed withdrawal Sites consist of the Columbia River Basalt aquifers, specifically those in the upper portions of the Grande Ronde. The main Columbia River Basalt aquifers generally flow to the south-southwest in the area at a general hydraulic gradient of 10 feet per mile. Water is withdrawn from the existing Kissler Farm well at a depth of approximately 725 to 777 feet, within the Sentinel Springs Member of the Grande Ronde. The proposed withdrawal site is recommended to also be located in the same aquifer with a well depth of 800 to 815 feet below ground surface for the wells located in the Moody Gulch area. Therefore, it is inferred that the transfer will be located within the upper Grande Ronde, Sentinel Bluff Member basalt aquifer, and is the “same body of water”. Existing domestic and irrigation users located in the area will not be impaired from the new withdrawal, as the new point of withdrawal will be utilizing groundwater that is currently being withdrawn in the same aquifer interflow and there will be no increase in amount of withdrawal as what is currently being withdrawn from the Kissler Farm well.”*



Existing Wells:

Well 1, is identified as 10" x 545 feet deep. The well was constructed in 1967. The static water level was described as 192 feet below land surface in 1967. The well appears to have been deepened once and reamed once. The deepening occurred in 1976 and it was deepened to 770 feet. The static water level was not recorded at that time. The reaming occurred in 1990 and the static water level was not recorded at that time. The reaming record at completion describes the well as 13' x 777 feet deep. The well casing is not described after the reaming.

Well 2, is identified as 8" x 385 feet deep. The well was constructed in 1974. The static water level was not described surface in 1974. The well appears to have been deepened once and reamed once. The deepening and reaming is described in a letter to Ecology that is dated June 14, 1978. The letter describes the well as 10" x 440 feet below land surface. There is no information on the static water level or the amount of casing.

Well 3, is identified as 6" x 126 feet deep, with the possibility of it being deepened to 300 feet in depth. This information was obtained from the original Report of Exam and no other information is available.

Existing Rights

A review of Ecology records was conducted for existing ground water rights, permits, and claims in the surrounding area of the proposed service area around Wells 1, 2 & 3 and the proposed wells. The search focused primarily on Sections 2 through 11 and 14 through 22, T. 20 N., R. 31 E.W.M.; Section 16 through 21 and 28 through 33, T. 21 N., R. 31 E.W.M. and Sections 13, 24, 25, and 36 T. 21 N., R. 30 E.W.M.

Within Sections 2 through 11 and 14 through 22, T. 20 N., R. 31 E.W.M, a total of nineteen (19) Claims and nine (9) certificates (other than G3-00300 and G3-23008) were identified. All wells except G3-08113C in Section 6 and G3-01153C(A) & (B) are greater than one mile from the proposed withdrawal points under this application. Hydrogeologic analysis conducted at the site does not appear that these wells will be impaired from this transfer.

Within Section 16 through 21 and 28 through 33, T. 21 N., R. 31 E.W.M, a total of three (3) Claims and nine (9) certificates (one duplicate of No. 7079 was also listed) were identified. All wells except G3-01236C in Section 31 and G3-00633C are greater than one mile from the proposed withdrawal points under this application. Hydrogeologic analysis conducted at the site does not appear that these wells will be impaired from this transfer.

Within Sections 13, 24, 25, and 36 T. 21 N., R. 30 E.W.M., a total of five Claims were identified.

*Other*

N/A

**The information or conclusions in this section were authored and/or developed by Adams County Water Conservancy Board.****CONCLUSIONS [See WAC 173-153-130(6)(d)]***Tentative determination (validity and extent of the right)*

There is a water right available for change transfer under Ground Water Certificate G3-00300C in the amount of 100 gallons per minute, 2 acre feet per year, each year, for continuous domestic supply and stock water; 108 acre feet per year, each year, for the seasonal irrigation of 235 acres.

*Relinquishment or abandonment concerns*

There are no relinquishment or abandonment concerns.

*Hydraulic analysis*

Ground water has been historically and beneficially used under this certificate. No withdrawal of water over and above what has been historically put to beneficial use would be authorized through approval of this change. Additional points of withdrawal under this change application will withdraw groundwater from the same basalt interval as the existing approved points of withdrawal. No expansion or enhancement of the water right will occur under this transfer.

*Consideration of comments and protests*

After review of comments and discussions with landowners at Board meetings, the ACWCB discussed potential modification of casing requirements with the applicant, and the reduction of the number of proposed wells. The ACWCB determined the maximum number of additional wells requested by the applicant should be reduced to the number presented in the final Boards decision located at the beginning of this ROE. In addition, ACWCB amends the "Casing and Sealing" pick specified by Ecology for any well drilled in NE ¼ Section 16, T. 20 N., R. 31 E.W.M. as follows:



"Casing and sealing will be required to a depth of 630 feet below ground surface instead of the recommended 530 feet specified in Ecology letter dated October 19, 2012. This requirement is amended in order to mitigate potential concerns of impairment to right G3-01153C(A) and any other water rights withdrawing from the Wanapum Basalt Member in the immediate vicinity of the proposed well. Sealing shall be placed from the bottom of the well to the top until undiluted sealing material returns to the surface. The annular space shall be a minimum of 4-inches greater than the permanent casing. After casing is sealed in place, the well may be completed by drilling out the casing until sufficient water is obtained.

The applicant has agreed to these modifications in the number of proposed wells and the casing modification for wells in Section 16.

#### *Impairment*

"Impair" or "impairment" means to 1) adversely impact the physical availability of water for a beneficial use that is entitled to protection, and/or 2) to prevent the beneficial use of the water to which one is entitled, and /or 3) to adversely affect the flow of a surface water course at a time when the flows are at or below in-stream flow levels established by rule (POL01200); and/or 4) degrade the quality of the source to the point that water is unsuitable for use by existing water right holders (WAC173-150). Demonstration of impairment would require evidence of a substantial and lasting or frequent impact reflecting such conditions.

The existing wells have lost considerable production since 1981. The area has been experiencing significant declines since 1968.

This application is requesting authorization to add wells to Ground Water Certificate G3-00300C. It appears that the right has been historically and beneficially exercised. The proposed change will not increase the amount of water withdrawn from the aquifer nor will it increase the land under irrigation or expand the right.

There has been no documented history of pumping interference between existing wells in this area, and it is not anticipated that the proposed change would cause impairment to existing water rights. The protestor's domestic well is drawing water from the Wanapum aquifer; Mr. Friehe will be casing and sealing through the Wanapum aquifer and withdrawing water from the Grande Ronde. This should alleviate protestant's concerns.

The applicant's consultant also completed a Theis non-equilibrium equation for the transfer. This evaluation was conducted for a pumping rate that included this water right plus the supplemental approval under G3-23008. Assuming an irrigation season of 214 days, the approved withdrawal for G3-00300 and G3-23008 would be 849 gpm. At an inferred distance of one mile, if the withdrawal is occurring in the confined Grande Ronde aquifer, a theoretical decrease in the hydrostatic head of 47.23 feet would be observed in a 50-foot thick aquifer. This change in hydrostatic head would occur if the entire approved amount of water is withdrawn from a single well. The theoretical drawdown would be reduced if the approved withdrawal occurs out of multiple wells located throughout the system.

#### *Public Interest*

It is the conclusion of the Adams County Water Conservancy Board that, in accordance with Chapters RCW 90.03 and 90.44, the Board will approve five (5) additional points of withdrawal under this application for change to result in a total of eight (8) points of withdrawal under Ground Water Certificate G3-00300C. This approval to add points of withdrawal will not enlarge the quantity of water historically put to beneficial use, nor will it impair existing rights or be detrimental to the public welfare provided the terms and conditions below are followed.

#### *Other*

The board also considered the previous provisions associated with the water right as identified in the background section of this report when making its decision.

#### **DECISION [See WAC 173-153-130(6)(e)]**

The board approves this application based on the information herein.

**The information or conclusions in this section were authored and/or developed by Adams County Water Conservancy Board.**

#### **PROVISIONS [See WAC 173-153-130(6)(f)]**

##### *Conditions and limitations*

Department of Ecology -- Casing and Sealing pick for an eight well locations in the area where Adams, Lincoln, and Grant Counties intersect. Changes on Water Right Certificate Nos. 7079-A, G3-23008C, and G3-00300C. (letter from John Covert to Herman Spangle on October 18, 2012):

"WAC 173-130A-170 Casing and Sealing allows the determination of casing and sealing requirements on a case-by-case basis in order to protect existing shallow domestic and stock water wells and springs.

Information on static water level collected over a number of years by the U.S. Geologic Survey and Ecology indicates the hydrologic break between the Wanapum and Grande Ronde aquifers typically occurs 200 feet below the geologic division between the Wanapum and Grande Ronde Formations.



Ecology was contacted regarding casing and sealing requirements for proposed wells. The following was outlined in October 19<sup>th</sup>, 2012 memo to Herm Spangle for this transfer:

The altitude of the Grande Ronde Basalt Member (from the USGS WRI Report 87-4238, Sheet Three) for a well in the NE  $\frac{1}{4}$  of the SE  $\frac{1}{4}$  of Section 17, T. 20 N., R. 31 E.W.M. is approximately 1100 feet above sea level (ASL). With a land surface elevation of 1425 feet ASL, this puts the top of the Grande Ronde at 325' below land surface. The casing call for a well at this site would be 525' of casing. To properly construct a well at this location, it would be required to case and seal to a minimum depth of 525 feet below ground surface to allow for production from the Grande Ronde aquifer. The annular space shall be a minimum of 4-inches greater than the permanent casing. After casing is sealed in place, the well may be completed by drilling out of the casing until sufficient water is obtained.

Sealing shall be placed from the bottom of the well to the top until undiluted sealing material returns to the surface.

The altitude of the Grande Ronde Basalt Member (from the USGS WRI Report 87-4238, Sheet Three) for a well in the SE  $\frac{1}{4}$  of the NE  $\frac{1}{4}$  of Section 16, T. 20 N., R. 31 E.W.M. is approximately 1100 feet above sea level (ASL). With a land surface elevation of 1430 feet ASL, this puts the top of the Grande Ronde at 330' below land surface. The casing call for a well at this site would be 530' of casing. To properly construct a well at this location, it would be required to case and seal to a minimum depth of 530 feet below ground surface to allow for production from the Grande Ronde aquifer. The annular space shall be a minimum of 4-inches greater than the permanent casing. After casing is sealed in place, the well may be completed by drilling out of the casing until sufficient water is obtained.

Sealing shall be placed from the bottom of the well to the top until undiluted sealing material returns to the surface.

The altitude of the Grande Ronde Basalt Member (from the USGS WRI Report 87-4238, Sheet Three) for a well in the NE  $\frac{1}{4}$  of the NE  $\frac{1}{4}$  of Section 19, T. 21 N., R. 31 E.W.M. is approximately 1240 feet above sea level (ASL). With a land surface elevation of 1580 feet ASL, this puts the top of the Grande Ronde at 340' below land surface. The casing call for a well at this site would be 540' of casing. To properly construct a well at this location, it would be required to case and seal to a minimum depth of 540 feet below ground surface to allow for production from the Grande Ronde aquifer. The annular space shall be a minimum of 4-inches greater than the permanent casing. After casing is sealed in place, the well may be completed by drilling out of the casing until sufficient water is obtained.

Sealing shall be placed from the bottom of the well to the top until undiluted sealing material returns to the surface.

The altitude of the Grande Ronde Basalt Member (from the USGS WRI Report 87-4238, Sheet Three) for a well in the E  $\frac{1}{2}$  of the SW  $\frac{1}{4}$  of Section 31, T. 21 N., R. 31 E.W.M. is approximately 1120 feet above sea level (ASL). With a land surface elevation of 1590 feet ASL, this puts the top of the Grande Ronde at 470' below land surface. The casing call for a well at this site would be 670' of casing. To properly construct a well at this location, it would be required to case and seal to a minimum depth of 670 feet below ground surface to allow for production from the Grande Ronde aquifer. The annular space shall be a minimum of 4-inches greater than the permanent casing. After casing is sealed in place, the well may be completed by drilling out of the casing until sufficient water is obtained.

Sealing shall be placed from the bottom of the well to the top until undiluted sealing material returns to the surface.

The altitude of the Grande Ronde Basalt Member (from the USGS WRI Report 87-4238, Sheet Three) for a well in the N  $\frac{1}{2}$  of the E  $\frac{1}{2}$  of Section 25, T. 21 N., R. 30 E.W.M. is approximately 1205 feet above sea level (ASL). With a land surface elevation of 1680 feet ASL, this puts the top of the Grande Ronde at 475' below land surface. The casing call for a well at this site would be 675' of casing. To properly construct a well at this location, it would be required to case and seal to a minimum depth of 675 feet below ground surface to allow for production from the Grande Ronde aquifer. The annular space shall be a minimum of 4-inches greater than the permanent casing. After casing is sealed in place, the well may be completed by drilling out of the casing until sufficient water is obtained.

Sealing shall be placed from the bottom of the well to the top until undiluted sealing material returns to the surface.

The altitude of the Grande Ronde Basalt Member (from the USGS WRI Report 87-4238, Sheet Three) for a well in the S  $\frac{1}{2}$  of the E  $\frac{1}{2}$  of Section 25, T. 21 N., R. 30 E.W.M. is approximately 1195 feet above sea level (ASL). With a land surface elevation of 1695 feet ASL, this puts the top of the Grande Ronde at 500' below land surface. The casing call for a well at this site would be 700' of casing. To properly construct a well at this location, it would be required to case and seal to a minimum depth of 700 feet below ground surface to allow for production from the Grande Ronde aquifer. The annular space shall be a minimum of 4-inches greater than the permanent casing. After casing is sealed in place, the well may be completed by drilling out of the casing until sufficient water is obtained.

Sealing shall be placed from the bottom of the well to the top until undiluted sealing material returns to the surface.

The altitude of the Grande Ronde Basalt Member (from the USGS WRI Report 87-4238, Sheet Three) for a well in the S  $\frac{1}{2}$  of the W  $\frac{1}{2}$  of Section 36, T. 21 N., R. 30 E.W.M. is approximately 1100 feet above sea level (ASL). With a land surface elevation of 1620 feet ASL, this puts the top of the Grande Ronde at 520' below land surface. The casing call for a well at this site would be 720' of casing. To properly construct a well at this location, it would be required to case and seal to a minimum depth of 720 feet below ground surface to allow for production from the Grande Ronde aquifer. The annular space shall be a minimum of 4-inches greater than the permanent casing. After casing is sealed in place, the well may be completed by drilling out of the casing until sufficient water is obtained.



Sealing shall be placed from the bottom of the well to the top until undiluted sealing material returns to the surface.

The altitude of the Grande Ronde Basalt Member (from the USGS WRI Report 87-4238, Sheet Three) for a well in the N ½ of the W ½ of Section 36, T. 21 N., R. 30 E.W.M. is approximately 1150 feet above sea level (ASL). With a land surface elevation of 1670 feet ASL, this puts the top of the Grande Ronde at 520' below land surface. The casing call for a well at this site would be 720' of casing. To properly construct a well at this location, it would be required to case and seal to a minimum depth of 720 feet below ground surface to allow for production from the Grande Ronde aquifer. The annular space shall be a minimum of 4-inches greater than the permanent casing. After casing is sealed in place, the well may be completed by drilling out of the casing until sufficient water is obtained.

Sealing shall be placed from the bottom of the well to the top until undiluted sealing material returns to the surface.

Adequate annular space also needs to be maintained for proper sealing of each well and for proper pump sizing. It is important to start out with and maintain a large enough well diameter to accommodate future reworking of wells.

An airline measuring device will be installed pursuant to WAC 173-130A-140 in each well. Additionally, WAC 173-160-291(3) and the water right certificate require the well be equipped with an access port. The length of the airline needs to be reported to the Department of Ecology, Water Resources Program, Eastern Regional Office, N. 4601 Monroe, Suite 202, Spokane, Washington, 99205-1295.

*Mitigation (if applicable)*

<Describe any requirement to mitigate adverse effects of the project. Mitigation may be proposed by the applicant or the board and be required in the board's decision>

*Construction Schedule*


Applicant has five (5) years from time of approval to complete the change authorization.

*Other*

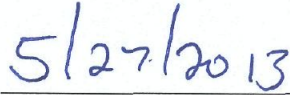
<Provide any other pertinent information relative to provisions>

**The information or conclusions in this section were authored and/or developed by Adams County Water Conservancy Board.**


The undersigned board commissioner certifies that he/she understands the board is responsible "to ensure that all relevant issues identified during its evaluation of the application, or which are raised by any commenting party during the board's evaluation process, are thoroughly evaluated and discussed in the board's deliberations. These discussions must be fully documented in the report of examination." [WAC 173-153-130(5)] The undersigned therefore, certifies that he/she, having reviewed the report of examination, knows and understands the content of this report and concurs with the report's conclusions.



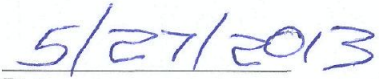
Chris Lyle, Board Representative  
Adams Water Conservancy Board



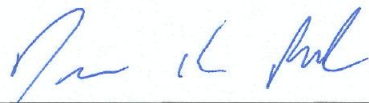
Date



Reid Phillips, Board Representative  
Adams Water Conservancy Board



Date



Damon Roth, Board Representative  
Adams Water Conservancy Board



Date

If you have special accommodation needs or require this form in alternate format, please contact 360-407-6607 (Voice) or 711 (TTY) or 1-800-833-6388 (TTY).

Ecology is an equal opportunity employer